



Women's Health Care Bibliography July 2004

1: Am J Clin Nutr. 2004 Jul;80(1):76-81.

Frequent nut consumption and decreased risk of cholecystectomy in women.

Tsai CJ, Leitzmann MF, Hu FB, Willett WC, Giovannucci EL.

BACKGROUND: Gallstone disease is a major source of morbidity in the developed countries. Nuts are rich in several compounds that may protect against gallstone disease. **OBJECTIVE:** The association between nut intake and cholecystectomy was examined in a large cohort of women. **DESIGN:** We prospectively studied nut (peanuts, other nuts, and peanut butter) consumption in relation to the risk of cholecystectomy in a cohort of 80,718 women from the Nurses' Health Study who were 30-55 y old in 1980 and had no history of gallstone disease. As part of the Nurses' Health Study, the women reported on questionnaires mailed to them every 2 y both their consumption of nuts and whether they had undergone cholecystectomy. The women were followed through 2000. **RESULTS:** During 1,393,256 person-years of follow-up from 1980 to 2000, we documented 7831 cholecystectomies. After adjustment for age and other known or suspected risk factors, women who consumed ≥ 5 units of nuts (1 unit = 1 oz or 28.6 g nuts)/wk (frequent consumption) had a significantly lower risk of cholecystectomy (relative risk: 0.75; 95% CI: 0.66, 0.85; P for trend < 0.0001) than did women who never ate nuts or who ate < 1 unit/mo (rare consumption). Further adjustment for fat consumption (saturated fat, trans fat, polyunsaturated fat, and monounsaturated fat) did not materially alter the relation. In analyses examining consumption of peanuts and other nuts separately, both were associated with a lower risk of cholecystectomy. **CONCLUSION:** In women, frequent nut consumption is associated with a reduced risk of cholecystectomy.

PMID: 15213031 [PubMed - in process]

2: Am J Epidemiol. 2004 Jul 15;160(2):131-40.

Factors affecting menstrual cycle characteristics.

Liu Y, Gold EB, Lasley BL, Johnson WO.

This 1989-1991 study in California and Utah used daily urinary metabolites of estrogen and progesterone and computer algorithms to assess ovulatory status and day of ovulation. The authors examined the associations of risk factors with menstrual cycle characteristics for 309 working women aged 20-44 years who collected a median of five cycles each of daily urine samples. Linear mixed models were used to assess continuous menstrual outcomes. Compared with women less than age 35 years, women aged 35 years or older had a significantly decreased (-0.94 days, 95% confidence interval: -1.83, -0.05) adjusted mean cycle length. Age modified the effects of smoking, physical activity, ethnicity, and alcohol consumption on mean follicular phase length. Asian women had a significantly longer (1.65 days, 95% confidence interval: 0.54, 2.76) adjusted mean cycle length compared with Caucasian women. Compared with women who did not consume alcoholic drinks, women who did had a significantly shorter (-1.26 days, 95% confidence interval: -2.21, -0.31) adjusted mean cycle length. Mean cycle and phase lengths were significantly associated with length of the prior luteal phase. These results indicate that potentially modifiable risk factors, as well as immutable host factors, are

associated with menstrual cycle characteristics that may in turn be related to subsequent disease risk.

PMID: 15234934 [PubMed - in process]

3: Am J Gastroenterol. 2004 Jul;99(7):1364-70.

Long-term intake of dietary fiber and decreased risk of cholecystectomy in women.

Tsai CJ, Leitzmann MF, Willett WC, Giovannucci EL.

BACKGROUND: Epidemiologic studies on the relationship between dietary fiber and gallstone disease are inconclusive, and the effects of different types of dietary fiber are not clear.

METHODS: We examined the association between long-term intake of dietary fiber as well as fiber from different sources and risk of cholecystectomy in a cohort of 69,778 women who were aged from 35 to 61 years in 1984 and had no history of gallstone disease. As part of the Nurses' Health Study, the women reported on questionnaires mailed to them every two years both their fiber intake and whether they had undergone cholecystectomy. **RESULTS:** During 16 yr of follow-up, we documented 5,771 cases of cholecystectomy. After adjusting for age and other known or suspected risk factors in a multivariate model, compared with women in the lowest quintile of total dietary fiber intake, the relative risk of cholecystectomy for those in the highest quintile was 0.87 (95% CI, 0.78-0.96, p for trend = 0.005). For a 5-g increase in total fiber intake, the multivariate relative risk was 0.94 (95% CI, 0.90-0.98). Insoluble fiber, taking soluble fiber into account in the multivariate model, was significantly associated with a reduced risk. The multivariate relative risk was 0.83 (95% CI, 0.73-0.94, p for trend = 0.009) for insoluble fiber, and was 1.01 (95% CI, 0.89-1.15, p for trend = 0.9) for soluble fiber, when extreme quintiles were compared. For a 5-g increase in intake, the relative risk was 0.90 (95% CI, 0.84-0.97) for insoluble fiber, and was 1.01 (95% CI, 0.83-1.23) for soluble fiber.

CONCLUSIONS: Our results suggest that increased long-term consumption of dietary fiber, particularly insoluble fiber, can reduce risk of cholecystectomy in women.

PMID: 15233680 [PubMed - in process]

4: Am J Phys Anthropol. 2004 Jul;124(3):275-81.

Android subcutaneous adipose tissue topography in lean and obese women suffering from PCOS: Comparison with type 2 diabetic women.

Horejsi R, Moller R, Rackl S, Giuliani A, Freytag U, Crailsheim K, Sudi K, Tafeit E.

The new optical device, the lipometer, enables the noninvasive, quick, safe, and precise determination of the thickness of subcutaneous adipose tissue (SAT) layers at any given site of the human body. Fifteen anatomically well-defined body sites from neck to calf describe a SAT topography (SAT-Top) like an individual "fingerprint" of a subject. This SAT-Top was examined in 16 women with polycystic ovary syndrome (PCOS) and compared to the body fat distribution of 87 age-matched healthy controls and 20 type-2 diabetic women. SAT-Top differences of these three groups were described and, to render the possibility of visual comparison, the 15-dimensional body fat information was condensed to a two-dimensional factor plot by factor analysis. All PCOS patients had an android body fat distribution with significantly thinner SAT layers on the legs as compared to healthy controls. Moreover, a hierarchical cluster analysis resulted in two distinctly different groups of PCOS women, a lean (PCOS(L)) and an obese (PCOS(O)) cluster: compared to healthy women, lean PCOS patients had significantly lower total SAT development, even though height, weight, and body mass index did not deviate significantly. Especially on the legs, their SAT layers were significantly lowered, indicating a more "apple-like" fat distribution type. Obese PCOS women showed a SAT-Top pattern very similar to that of women with type-2 diabetes, although the mean age difference between these groups was more than 30 years. Compared to healthy controls, the SAT-Top of these obese PCOS patients was strongly shifted into the android direction, appearing as "super-apples" with a significantly increased upper trunk obesity to 237.8% and a significantly decreased leg SAT development to 79.8%. Am J Phys Anthropol, 2003.

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PMID: 15197822 [PubMed - in process]

5: Ann Pharmacother. 2004 Jul;38(7):1293-6. Epub 2004 Jun 08.

Selective serotonin-reuptake inhibitors for the treatment of hot flashes.

De Sloover Koch Y, Ernst ME.

OBJECTIVE: To review the literature evaluating the use of selective serotonin-reuptake inhibitors (SSRIs) for the treatment of hot flashes. **DATA SOURCES:** Biomedical literature was accessed through MEDLINE (1966-June 2003), MD Consult, and references of reviewed articles. Key search terms used were hot flashes, vasomotor symptoms, antidepressants, and SSRIs. **DATA SYNTHESIS:** Recent evidence from the Women's Health Initiative precludes the use of traditional hormonal therapy in some women. Nonhormonal therapies are possible options, but conflicting evidence of efficacy exists. **CONCLUSIONS:** Although further studies are warranted, preliminary data suggest that SSRIs are generally modestly successful in reducing the frequency and severity of hot flashes.

PMID: 15187211 [PubMed - in process]

6: Br J Cancer. 2004 Jul 5;91(1):69-76.

Impact of screening for breast cancer in high-risk women on health-related quality of life.

Rijnsburger AJ, Essink-Bot ML, Van Dooren S, Borsboom GJ, Seynaeve C, Bartels CC, Klijn JG, Tibben A, De Koning HJ.

The effectiveness of intensive surveillance in women at high risk for breast cancer due to a familial or genetic predisposition is uncertain and is currently being evaluated in a Dutch magnetic resonance imaging (MRI) screening (MRISC) study, in which annual imaging consists of mammography and MRI. Unfavourable side effects on health-related quality of life may arise from this screening process. We examined the short-term effects of screening for breast cancer in high-risk women on generic health-related quality of life and distress. A total of 519 participants in the MRISC study were asked to complete generic health-status questionnaires (SF-36, EQ-5D) as well as additional questionnaires for distress and items relating to breast cancer screening, at three different time points around screening. The study population showed significantly better

generic health-related quality of life scores compared to age-/sex-adjusted reference scores from the general population. Neither generic health-related quality of life scores nor distress scores among the study sample (n=334) showed significant changes over time. The impact of the screening process on generic health status did not differ between risk categories.

Relatively more women reported mammography as quite to very painful (30.1%) compared to MRI. Anxiety was experienced by 37% of the women undergoing MRI. We conclude that screening for breast cancer in high-risk women does not have an unfavourable impact on short-term generic health-related quality of life and general distress. In this study, high-risk women who opted for regular breast cancer screening had a better health status than women from the general population. British Journal of Cancer (2004) 91, 69-76.

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PMID: 15199386 [PubMed - in process]

7: Brain Behav Immun. 2004 Jul;18(4):304-13.

Pain, psychological variables, sleep quality, and natural killer cell activity in midlife women with and without fibromyalgia.

Landis CA, Lentz MJ, Tsuji J, Buchwald D, Shaver JL.

In women with fibromyalgia (FM), central nervous system (CNS) dysfunction in pain, mood, and sleep processes could be associated with changes in immune system indicators. The primary purpose of this study was to compare pain, psychological variables, subjective and objective sleep quality, lymphocyte phenotypes and activation markers, and natural killer activity (NKA) in midlife women with and without FM. A secondary purpose was to explore relationships among these variables in a step-wise regression. Subjects had pain pressure tender points assessed, completed a psychiatric interview and questionnaires (Beck Depression Inventory, SCL-90, Profile of Mood States, subjective sleep), and underwent polysomnographic assessment for two consecutive nights. Lymphocyte phenotypes, activation markers, and NKA were assessed from blood drawn the morning after sleep laboratory night 2. Compared to controls, women with FM had lower pain thresholds, more psychological distress, higher depression scores, and reduced subjective and objective sleep quality. They also had fewer NK cells [Formula: see text] and more NK cells that expressed the IL-2 receptor [Formula: see text], but these differences were not statistically significant after correction for multiple comparisons. NKA was not statistically significantly lower in the women with FM compared to controls. In a multiple regression of age, tender point threshold,

depression, psychological distress, and sleep efficiency, only the effect of group was significant ([Formula: see text]) on NKA. In conclusion, we found little evidence to support the hypothesis that pain, mood, and sleep symptoms are associated with changes in the enumeration of peripheral lymphocytes or function in FM.
PMID: 15157947 [PubMed - in process]

8: Cancer Lett. 2004 Jul 28;211(1):57-67.

Medication use, tamoxifen (TAM), and TAM metabolite concentrations in women with breast cancer.

Gallicchio L, Tkaczuk K, Lord G, Danton M, Lewis LM, Lim CK, Flaws JA.

Tamoxifen (TAM) is commonly used as an adjuvant treatment for breast cancer. Although patients taking TAM are often taking medications for comorbidities, data regarding the interaction of TAM with other medications are limited. Thus, this study was carried out to determine whether medications co-prescribed with TAM significantly influence the plasma concentrations of TAM and its metabolites (N-desmethyltamoxifen; N-DMT and 4-hydroxytamoxifen; 4-OHT) in 98 women diagnosed with breast cancer. Participants taking diuretics had significantly higher plasma concentrations of TAM and N-DMT than participants not taking a diuretic. Arthritis/pain medication intake was negatively associated with plasma TAM concentrations. Chemotherapeutic agents, allergy drugs, anti-depressants, and diabetes medications did not significantly alter plasma TAM or metabolite concentrations. This suggests that diuretic or an arthritis/pain medication may affect TAM metabolism.
PMID: 15194217 [PubMed - in process]

9: Circulation. 2004 Jun 28 [Epub ahead of print]

Postmenopausal Hormone Therapy Is Associated With Atherosclerosis Progression in Women With Abnormal Glucose Tolerance.

Howard BV, Hsia J, Ouyang P, Van Voorhees L, Lindsay J, Silverman A, Alderman EL, Tripputi M, Waters DD.

BACKGROUND: Abnormal glucose tolerance (AGT; diabetes or impaired glucose tolerance) is associated with increased risk of cardiovascular disease, especially in women. Cardiovascular disease rates in women increase after menopause. The Women's Health Initiative found that postmenopausal hormone therapy (PHT) increased the risk of cardiovascular disease and that effects in diabetic women did not differ from those in women without diabetes. In this study, we hypothesized that PHT would have a worse effect on disease among women with AGT. **METHODS AND RESULTS:** We randomly assigned 423 postmenopausal women with angiographically defined atherosclerosis (321 women had exit angiograms) with (n=140) or without (n=181) AGT to receive estrogen, estrogen plus progestin, or a placebo for 2.8+/-0.9 years. LDL was lower and HDL and triglycerides were higher after PHT in non-AGT and AGT women, but more adverse changes occurred in C-reactive protein and fibrinogen in women with AGT (P=0.11 and P=0.02 for interactions). PHT had no effect on fasting glucose or insulin concentrations in women without AGT, but in women with AGT, fasting glucose levels, insulin concentration, and insulin resistance as assessed by the HOMA (homeostasis model) calculation decreased slightly (P=0.28, P=0.25, P=0.14 for interaction, respectively). Atherosclerotic progression was greater in women with AGT. Atherosclerotic progression in previously nondiseased segments was enhanced by PHT to a greater extent in women with AGT (P=0.11 for interaction). **CONCLUSIONS:** PHT is associated with a worsening of coronary atherosclerosis and exacerbation of the profile of inflammatory markers in women with AGT. Therefore, PHT is not warranted for use in diabetic women. Further study is needed to explore the improvement in insulin resistance and glycemia that appears to occur with PHT in women with AGT.
PMID: 15226212 [PubMed - as supplied by publisher]

10: Clin Gastroenterol Hepatol. 2004 Jul;2(7):585-96.

Self-management for women with irritable bowel syndrome.

Heitkemper MM, Jarrett ME, Levy RL, Cain KC, Burr RL, Feld A, Barney P, Weisman P.

Background & Aims: A randomized clinical trial was used to test the effectiveness of an 8-session multicomponent program (Comprehensive) compared to a Brief (single session) version and Usual Care for women with irritable bowel syndrome. **Methods:** Menstruating women, ages 18-48 years, were recruited from a health maintenance organization as well as

community advertisements. Psychiatric nurse practitioners delivered both programs. The primary outcomes were improved symptoms, psychological distress, health-related quality of life, and indicators of stress-related hormones. Outcome indicators were measured at 3 points: (1) immediately after the Comprehensive program or 9 weeks after entry into the Usual Care and Brief Self-Management groups, (2) at 6 months, and (3) at 12 months. Results: Compared to Usual Care, women in the Comprehensive program had reduced gastrointestinal symptoms, psychological distress indicators, interruptions in activities because of symptoms, and enhanced quality of life that persisted at the 12-month follow-up evaluation. Women in the Brief group also demonstrated statistically significant improvements in quality of life and smaller nonsignificant improvements in other outcome variables than observed in the Comprehensive group. There were no group differences in urine catecholamines and cortisol levels. Conclusions: A comprehensive self-management program is an important therapy approach for women with irritable bowel syndrome. The Brief 1-session version is also moderately helpful for some women with IBS.
PMID: 15224283 [PubMed - in process]

11: Contraception. 2004 Jul;70(1):25-9.

Emergency contraception: why can't you give it away? Qualitative findings from an evaluation of advance provision of emergency contraception.

Fairhurst K, Ziebland S, Wyke S, Seaman P, Glasier A.

The Lothian Emergency Contraception Project (LECP)-a primary care-based intervention to offer advance supplies of emergency contraception (EC) to women aged 16-29 was not associated with a reduction in abortion rates. We undertook case studies, utilizing qualitative and quantitative methods, to evaluate the intervention. In this article we present findings from qualitative interviews with 44 primary care professionals working at case study sites and 22 women who had received advance supplies to explain this failure. Professionals reported that women rarely asked for advance supplies of EC and they were reluctant to offer supplies to women because of concerns about contradictory sexual health messages implied by the offer, a perceived association of EC use with chaotic behavior by women, views about the sort of women suitable for advance supplies and practical difficulties making the offer. Women were reluctant to ask for advance supplies because of misgivings about the appropriateness of offering

advance supplies to everybody and concerns about being judged by health professionals as morally inadequate. If advance provision of EC is to be successful in reducing abortion rates, professionals must address their concerns about EC and develop imaginative ways of encouraging women most at risk of unwanted pregnancy to take supplies home.

PMID: 15208049 [PubMed - in process]

12: Curr Cardiol Rep. 2004 Jul;6(4):243-52.

Acute coronary syndromes in women: is treatment different? Should it be?

Bennett SK, Redberg RF.

The vast majority of acute coronary syndrome (ACS) trials conducted over the past two decades support the view that women have persistently higher mortality and morbidity despite the introduction of new medical therapies and devices. Even after adjustment for older age, higher prevalence of diabetes, hypertension, heart failure, smaller vessel size, and late presentation, some studies still point to a persistent sex disadvantage. Even in contemporary practice, women continue to have longer delays in presentation and treatment. Selection bias in unstable angina/non-ST-elevation myocardial infarction

(UA/NSTEMI) trials allows inclusion of large numbers of women with clinically insignificant coronary disease and may mistakenly shift results toward apparent benefit of a less aggressive approach. This bias causes further difficulty in determining efficacy and safety of new antithrombotic agents such as direct thrombin inhibitors and glycoprotein IIb/IIIa inhibitors across the spectrum of ACS. In trials of UA/NSTEMI, use of objective evidence of ischemia such as elevated troponin levels, would greatly assist the determination of efficacy and benefit in women. Enrollment of more women in clinical trials and timely sex-specific analysis would promote a better understanding of the role of female gender in ACS and would facilitate better care of all patients.

PMID: 15182598 [PubMed - in process]

13: Curr Treat Options Neurol. 2004 Jul;6(4):319-330.

Sleep Problems Across the Life Cycle in Women.

Moline M, Broch L, Zak R.

Across the life cycle of women, the quality and quantity of sleep can be markedly impacted by internal (eg, hormonal changes and vasomotor symptoms) and external (financial and child-care responsibilities; marital issue) factors. This paper will outline some of the major phases of the life cycle in women that have been associated with sleep problems. The main messages from this paper include 1) that very little systematic, large-scale research has been performed in virtually every area reviewed; and 2) once identified, the sleep problem is generally best addressed by the standard therapeutic approach, except in the case of pregnant and lactating women in which concern for the fetus and child must be considered in the treatment decision. This paper is organized into sections that address sleep problems associated with the menstrual cycle, pregnancy, postpartum, and perimenopause. Anecdotal reports recommend treatment that addresses the specific physical discomfort experienced by the woman (eg, analgesics for premenstrual pain, pregnancy pillows for backache, and hormone replacement therapy for hot flashes). The importance of developing standard treatment recommendations is stressed because the development of chronic insomnia has been linked to precipitating events. In addition, primary sleep disorders (eg, sleep apnea or restless legs syndrome) have been shown to increase during pregnancy and menopause, but treatment recommendations may be contraindicated or are not specific for women. PMID: 15157409 [PubMed - as supplied by publisher]

14: Diabet Med. 2004 Jul;21(7):697-704.

Angiopoietic factors and retinopathy in pregnancies complicated with Type 1 diabetes.

Loukovaara S, Immonen I, Koistinen R, Rudge J, Teramo KA, Laatikainen L, Hiilesmaa V, Kaaja RJ.

Abstract Aims To evaluate the role of systemic angiopoietic factors in the progression of diabetic retinopathy during pregnancy. **Methods** In a prospective study of 26 pregnant women with diabetes and eight non-diabetic pregnant women, retinopathy was graded from fundus photographs. Plasma levels of angiopoietin-1, angiopoietin-2, human vascular endothelial growth factor A (hVEGF-A), and total soluble receptor of vascular endothelial growth factor (sVEGF) receptor-1 were measured during the first and third trimester and 3 months postpartum. **Results** In diabetic women, levels of angiopoietin-2 were 26.5 ng/ml (12.1-47.7) (median and range) during the first trimester, 2.9 ng/ml (0.6-3.5) during the third trimester, and 0.5 ng/ml (0.3-0.7) 3 months postpartum, compared with 44.3 (38.3-61.9), 5.7 (3.1-8.4) and 0.9 (0.6-4.9) ng/ml, respectively, in non-diabetic women ($P = 0.002$ between groups). Levels of angiopoietin-1 and sVEGF receptor-1 did not differ between the groups. Postpartum hVEGF-A levels were lowest in women with progression of retinopathy. In logistic regression analyses, progression of retinopathy during pregnancy was not explained by the levels of the angiopoietic factors. **Conclusions** The circulating levels of angiopoietic factors in pregnant diabetic women were either lower than (Ang-2) or similar to (Ang-1, hVEGF-A, VEGFR-1) those levels observed in non-diabetic pregnant women. The levels of angiopoietic factors measured here appear not to be connected with the progression of retinopathy during pregnancy. Diabet. Med. (2004) PMID: 15209761 [PubMed - in process]

15: Diabetes Care. 2004 Jul;27(7):1721-7.

Plasma adiponectin, insulin sensitivity, and subclinical inflammation in women with prior gestational diabetes mellitus.

Winzer C, Wagner O, Festa A, Schneider B, Roden M, Bancher-Todesca D, Pacini G, Funahashi T, Kautzky-Willer A.

OBJECTIVE-Women with prior gestational diabetes mellitus (pGDM) are at increased risk of developing type 2 diabetes and associated vasculopathy. Because increased fat mass and inflammatory processes are angiopathic risk factors, the relationship between insulin sensitivity, parameters of subclinical inflammation, and plasma concentrations of adipocytokines was investigated in pGDM both at 3 months and 12 months after delivery. **RESEARCH DESIGN AND METHODS**-Insulin sensitivity (through a frequently sampled intravenous glucose tolerance test) and plasma concentrations of ultrasensitive C-reactive

protein (CRP), adiponectin, plasminogen activator inhibitor (PAI)-1, tumor necrosis factor- α , leptin, and interleukin-6 were measured in 89 pGDM (BMI 26.9 \pm 0.5 kg/m², age 32 \pm 0.5 years) and in 19 women with normal glucose tolerance during pregnancy (NGT) (23.7 \pm 0.9 kg/m², 31 \pm 1.3 years). RESULTS-pGDM showed lower ($P < 0.0001$) plasma adiponectin (6.7 \pm 0.2 microg/ml) than NGT (9.8 \pm 0.6 microg/ml) and a decreased ($P < 0.003$) insulin sensitivity index (S(i)) and disposition index ($P < 0.03$), but increased plasma leptin ($P < 0.003$), PAI-1 ($P < 0.002$), and CRP ($P < 0.03$). After adjustment for body fat mass, plasma adiponectin remained lower in pGDM ($P < 0.004$) and correlated positively with S(i) ($P < 0.003$) and HDL cholesterol ($P < 0.0001$) but negatively with plasma glucose (2-h oral glucose tolerance test [OGTT]) ($P < 0.0001$), leptin ($P < 0.01$), CRP ($P < 0.007$), and PAI-1 ($P < 0.0001$). On regression analysis, only HDL cholesterol, postload (2-h OGTT) plasma glucose, and S(i) remained significant predictors of plasma adiponectin, explaining 42% of its variability. Of note, adiponectin further decreased ($P < 0.05$) only in insulin-resistant pGDM despite unchanged body fat content and distribution after a 1-year follow-up. CONCLUSIONS-Lower plasma adiponectin concentrations characterize women with previous GDM independently of the prevailing insulin sensitivity or the degree of obesity and are associated with subclinical inflammation and atherogenic parameters.

PMID: 15220253 [PubMed - in process]

16: Diabetes Care. 2004 Jul;27(7):1547-53.

Effect of alendronate on bone mineral density and biochemical markers of bone turnover in type 2 diabetic women: the fracture intervention trial.

Keegan TH, Schwartz AV, Bauer DC, Sellmeyer DE, Kelsey JL.

OBJECTIVE-Alendronate sodium (ALN) increases bone mineral density (BMD) in heterogeneous populations of postmenopausal women, but its effect is unknown in women with type 2 diabetes. The objective of this project was to compare changes in BMD during 3 years of ALN treatment versus placebo in diabetic women. RESEARCH DESIGN AND METHODS-We used data from the Fracture Intervention Trial, a randomized blinded placebo-controlled trial conducted at 11 centers in which 6,458 women aged 54-81 years with a femoral neck BMD of ≤ 0.68 g/cm² were randomly assigned to either placebo or 5 mg/day ALN for 2 years, followed by 10 mg/day for the remainder of the trial. BMD was measured by dual-energy X-ray absorptiometry. Type 2 diabetes ($n = 297$) was defined by self-report, use of insulin or other hypoglycemic agents, or a random nonfasting glucose value ≥ 200 mg/dl. RESULTS-In diabetic women, 3 years of ALN treatment was associated with increased BMD at all sites studied, including 6.6% at the lumbar spine and 2.4% at the hip, whereas women in the placebo group experienced a decrease in BMD at all sites except the lumbar spine. The safety/tolerability of ALN was similar to placebo, except for abdominal pain, which was more likely in the ALN group. CONCLUSIONS-ALN increased BMD relative to placebo in older women with type 2 diabetes and was generally well tolerated as a treatment for osteoporosis. Increases in BMD with ALN therapy compared with placebo were similar between women with and without diabetes.

PMID: 15220226 [PubMed - in process]

17: Eur J Appl Physiol. 2004 Jul 1 [Epub ahead of print]

The effects of a combined strength and aerobic exercise program on glucose control and insulin action in women with type 2 diabetes.

Tokmakidis SP, Zois CE, Volaklis KA, Kotsa K, Tournra AM.

The purpose of the present study was to investigate the short- and long-term effects of a combined strength and aerobic training program on glycemic control, insulin action, exercise capacity and muscular strength in postmenopausal women with type 2 diabetes. Nine postmenopausal women, aged 55.2 (6.7) years, with type 2 diabetes participated in a supervised training program for 4 months consisting of two strength training sessions (3 sets of 12 repetitions at 60% one-repetition maximum strength) and two aerobic training sessions (60-70% of maximum heart rate at the beginning, and 70-80% of maximum heart rate after 2 months). Anthropometrical measurements, percentage glycated hemoglobin, a 2-h oral glucose tolerance test, exercise stress testing and maximum strength were measured at the beginning, and after 4 and 16 weeks of the exercise program. Significant reductions were observed in both the glucose (8.1% $P < 0.01$) and insulin areas under the curve (20.7%,

P<0.05) after 4 weeks of training. These adaptations were further improved after 16 weeks (glucose 12.5%, insulin 38%, P<0.001). Glycated hemoglobin was significantly decreased after 4 weeks [7.7 (1.7) vs 7.1 (1.3)%, P<0.05] and after 16 weeks [7.7 (1.7) vs 6.9 (1.0)%, P<0.01] of exercise training. Furthermore, exercise time and muscular strength were significantly improved after 4 weeks (P<0.01) as well as after 16 weeks (P<0.001) of training. Body mass and body-mass index, however, were not significantly altered throughout the study. The results indicated that a combined training program of strength and aerobic exercise could induce positive adaptations on glucose control, insulin action, muscular strength and exercise tolerance in women with type 2 diabetes.
PMID: 15232701 [PubMed - as supplied by publisher]

18: Eur J Cardiovasc Nurs. 2004 Jul;3(2):119-27.

'Add women & stir'-the biomedical approach to cardiac research!

O'Donnell S, Condell S, Begley CM.

In conditions shared by women and men, the biomedical model of disease assumes that illness-symptoms and outcomes are biologically and socially 'neutral'. Consequently, up until a decade ago, white middle-aged men were the model subjects in most funded cardiac trials, with the assumption that whatever the findings, the results would also hold true for women. This 'add women and stir' approach has resulted in imbalances in cardiac care and an image of coronary artery disease, which portrays a middle-aged male as its victim. Moreover, cardiac health care has been designed with the male anatomy and male experience of illness in mind, and health promotional measures have been targeted towards men. Women have received these health promotional messages to protect the hearts of men, and have been less likely to modify their own lifestyles in a cardio-protective manner. However, the biological and social differences that exist between women and men, must surely invalidate such biased biomedical assertions, and signify a need to delve beyond the realm of biomedical reductionism for greater insights and understanding. This review examines how scientific reductionism has failed to explore the impact of coronary artery disease on the lives of women and how the gendered image of this disease has privileged the normative frame.

PMID: 15234316 [PubMed - in process]

19: Eur J Clin Nutr. 2004 Jul;58(7):1071-7.

Regular meal frequency creates more appropriate insulin sensitivity and lipid profiles compared with irregular meal frequency in healthy lean women.

Farshchi HR, Taylor MA, Macdonald IA.

OBJECTIVE:: To investigate the impact of irregular meal frequency on circulating lipids, insulin, glucose and uric acid concentrations which are known cardiovascular risk factors. DESIGN:: A randomised crossover dietary intervention study. SETTING:: Nottingham, UK-Healthy free-living women. SUBJECTS:: A total of nine lean healthy women aged 18-42 y recruited via advertisement. INTERVENTION:: A randomised crossover trial with two phases of 14 days each. In Phase 1, subjects consumed their normal diet on either 6 occasions per day (regular) or by following a variable meal frequency (3-9 meals/day, irregular). In Phase 2, subjects followed the alternative meal pattern to that followed in Phase 1, after a 2-week (wash-out) period. Subjects were asked to come to the laboratory after an overnight fast at the start and end of each phase. Blood samples were taken for measurement of circulating glucose, lipids, insulin and uric acid concentrations before and for 3 h after consumption of a high-carbohydrate test meal. RESULTS:: Fasting glucose and insulin values were not affected by meal frequency, but peak insulin and AUC of insulin responses to the test meal were higher after the irregular compared to the regular eating patterns (P<0.01). The irregular meal frequency was associated with higher fasting total (P<0.01) and LDL (P<0.05) cholesterol. CONCLUSION:: The irregular meal frequency appears to produce a degree of insulin resistance and higher fasting lipid profiles, which may indicate a deleterious effect on these cardiovascular risk factors. SPONSORSHIP:: The Ministry of Health and Medical Education, IR Iran. European Journal of Clinical Nutrition (2004) 58, 1071-1077.
doi:10.1038/sj.ejcn.1601935
PMID: 15220950 [PubMed - in process]

20: Eur J Obstet Gynecol Reprod Biol. 2004 Jul 15;115(1):3-9.

Multiple sclerosis: management issues during pregnancy.

Ferrero S, Pretta S, Ragni N.

Care of pregnant women with multiple sclerosis (MS) is challenging because of the multiple physiological changes associated with pregnancy and the need to consider the impact of any intervention on the foetus. Pregnancy is associated with clinical MS stability or improvement, while the rate of relapse rises significantly during the first three months post-partum before coming back to its level prior to pregnancy. Gestational history has no influence on long-term disability and MS does not seem to influence pregnancy or the child's health. Apart from methotrexate and cyclophosphamide, most drugs used regularly to treat MS can safely be used by pregnant women. Intravenous steroids may be used with relative safety during pregnancy. Maternal use of azathioprine is not associated with an increased risk of congenital malformations, though impaired foetal immunity, intrauterine growth retardation and prematurity are occasionally observed. Cyclosporin is not teratogenic, but may be associated with growth retardation and prematurity. Pregnancy should be avoided in women treated with methotrexate because of its known abortifacient effects and risk of causing typical malformations. Cyclophosphamide is teratogenic in animals, but population studies have not conclusively demonstrated its teratogenicity in humans. Until information is available regarding safety, glatiramer acetate, mitoxantrone, interferon-beta-1a and interferon-beta-1b should be discontinued before an anticipated pregnancy. Women with MS are no more likely to experience delivery complications than are women without MS and the mode of delivery should be decided strictly on obstetrical criteria. Spinal, epidural and general anaesthesia can all be used safely in MS patients. Young women with MS who desire children can be reassured that their infants are not at increased risk of malformations, preterm delivery, low birth weight, or infant death. The progressive nature of the disease may motivate affected women to start or complete their families as soon as possible.

PMID: 15223156 [PubMed - in process]

21: Gen Hosp Psychiatry. 2004 Jul-Aug;26(4):261-8.

Adult health status of women HMO members with posttraumatic stress disorder symptoms.

Ciechanowski PS, Walker EA, Russo JE, Newman E, Katon WJ.

Posttraumatic stress disorder (PTSD) is associated with high numbers of self-reported physical symptoms and functional disability in clinical samples, but little is known about the magnitude of these associations in population samples and using actual physician-coded diagnoses. We administered a 22-page survey to 1225 female HMO enrollees randomly selected from the current membership of a large, staff model HMO in Seattle, Washington. Using the PTSD Checklist (internally validated against a subset of clinical interviews) we compared women with low, moderate, and high scores with respect to differences in self-reported physical health status, functional disability (36-item short form health survey), numbers and types of self-reported health risk behaviors, common physical symptoms, and physician-coded ICD-9 diagnoses. Compared to women with low PTSD symptom severity, those with moderate or high severity reported significantly higher functional disability ($P < .001$), rates of abuse and neglect ($P < .01$ to $P < .001$), health risk behavior scores ($P < 0.05$), as well as higher mean numbers of common physical symptoms ($P < .05$). Compared to women with low PTSD symptom severity those with moderate or high severity had significantly higher adjusted odds ratios for aversive physical symptoms (range, 1.7-10.1). The mean number of physician-coded ICD-9 diagnoses was also significantly higher in the both the moderate and high severity groups. Among female HMO members, PTSD symptoms are associated with a wide range of both self-reported and physician-coded adverse physical health outcomes.

PMID: 15234820 [PubMed - in process]

22: Health Promot Pract. 2004 Jul;5(3):314-25.

Lesbian health matters: a pap test education campaign nearly thwarted by discrimination.

Phillips-Angeles E, Wolfe P, Myers R, Dawson P, Marrazzo J, Soltner S, Dziweczynski M.

The Pap test detects cell changes in the cervix that can be treated, preventing cancer from developing. Regular screening reduced cervical cancer deaths by 70% since 1950. Lesbians may not be adequately screened because of a misperception that they do not need Pap tests.

The "Lesbian Health Matters" public and provider education campaign was implemented to address this problem. Paid advertisements were placed on two radio stations and in four newspapers. After 1 week, both radio stations cancelled the ads due to listener complaints about hearing the word "lesbian" on the radio. The community responded to this discriminatory action by demanding the campaign be completed, creating publicity that increased the campaign's reach to 34% of women in the region. A training program was implemented reaching 219 providers. Thirty-two hundred health providers were surveyed regarding lesbianfriendly practice. A database of 293 providers was created and 120 referrals made.

PMID: 15228787 [PubMed - in process]

23: Hypertension. 2004 Jul;44(1):67-71. Epub 2004 May 17.

Sex differences in age-related stiffening of the aorta in subjects with type 2 diabetes.

De Angelis L, Millasseau SC, Smith A, Viberti G, Jones RH, Ritter JM, Chowienczyk PJ.

Hypertension and type 2 diabetes are associated with increased aortic pulse wave velocity (PWV), a measure of aortic stiffness and a powerful risk factor for cardiovascular events. The association of hypertension with type 2 diabetes may obscure the degree to which diabetes rather than hypertension contributes to an elevated PWV. The objective of this study was to determine whether the presence of type 2 diabetes is associated with an elevated PWV compared with nondiabetic subjects matched for mean arterial blood pressure. PWV was determined by measuring carotid to femoral transit time using applanation tonometry in 186 subjects (104 women) with (n=93) and without (n=93) type 2 diabetes. Diabetic and nondiabetic subjects were matched for age and mean arterial pressure (to +/-5 years and 5 mm Hg, respectively). PWV was strongly correlated with age and mean arterial blood pressure (R=0.59 and 0.29 respectively, each P<0.0001). PWV increased significantly more with age in women with diabetes (slope of regression line+/-SE: 0.19+/-0.03 m x s(-1) x year(-1)) than in nondiabetic women (0.08+/-0.02 m x s(-1) x year(-1), P<0.01 for difference). In men, however, the age-related increase in PWV was similar in diabetic (0.15+/-0.03 m x s(-1) x year(-1)) and nondiabetic subjects (0.13+/-0.03 m. s(-1) x year(-1), P=NS). The interaction of diabetic status with age and with sex was significant (P=0.01). Type 2 diabetes is associated with a greater age-related stiffening of the aorta in women compared with men, and this is not explained by hypertension.

PMID: 15148292 [PubMed - in process]

24: Int J Cardiol. 2004 Jul;96(1):7-19.

Ischemic heart disease in women and the role of hormone therapy.

Raza JA, Reinhart RA, Movahed A.

The prevalence of ischemic heart disease (IHD) has been increasing among the women in developed countries. The well recognized IHD excess in men has often obscured the fact that IHD is the leading cause of death in women. Women have atypical symptoms of IHD that lead to a delay in the diagnosis and an overall poor prognosis. Women have a delay in the onset of IHD due to the beneficial effects of their sex hormones. Postmenopausal women lose this beneficial effect of estrogen and undergo significant changes in their lipid profile, arterial pressure, glucose tolerance, and vascular reactivity that increase their risk for development of IHD. Recently there has been considerable interest in the sex hormones and their role in IHD in women. The general belief that hormone replacement therapy (HRT) has an overall beneficial effect on cardiovascular

disease (CVD) in women and hence decreases CVD mortality and morbidity has not been shown in the recent multicenter prospective studies. With the availability of various types of estrogen and progestins, physicians prescribing these agents should take into consideration their varying effects on the cardiovascular system. Risk factor modifications should include diet, weight loss, regular exercise, smoking cessation and adequate control of hypertension (HTN), diabetes (DM) and hyperlipidemia. In the appropriate setting, treatment with proven beneficial agents like aspirin, beta-blockers, angiotensin converting enzyme (ACE) inhibitors and statins will help decrease the burden of IHD in women.

PMID: 15203255 [PubMed - in process]

25: Int J Nurs Stud. 2004 Jul;41(5):515-24.

Changing perceptions of womanhood: living with Parkinson's Disease.

Fleming V, Tolson D, Schartau E.

This study adopted a multiple case study design to develop our understanding of the experiences and adjustments made by women with Parkinson Disease in relation to womanhood. Nineteen women participated in this investigation telling their stories through a combination of individual interviews, group interviews, reflective diaries, reflective tapes and creative writing. Data were analysed using the framework of Intrapersonal, Interpersonal, Extrapersonal and Metapersonal health proposed by Boddy and Rice (Perspectives on Health and Illness, Dunsmore Press, Palmerston North, 1992). Women reported that major changes were required in their lives in each of these aspects of health. In particular women reported labile emotions, changing body images, changing lifestyles, changing relationships with partner, family and friends, increasing dependence, decreasing role fulfillment and the need for support versus increasing isolation. The findings are of particular relevance to nurses and other health professionals involved with women with Parkinson's Disease as well as social services and voluntary agencies.
PMID: 15120980 [PubMed - indexed for MEDLINE]

26: J Am Geriatr Soc. 2004 Jul;52(7):1138-45.

Breast cancer treatment in older women: impact of the patient-physician interaction.
Maly RC, Leake B, Silliman RA.

Objectives: To assess the impact of the patient-physician interaction on breast cancer care in older women. Design: Cross-sectional survey. Setting: Los Angeles County, California. Participants: Two hundred twenty-two consecutively identified breast cancer patients aged 55 and older who were within 6 months of breast cancer diagnosis and/or 1 month posttreatment. Measurements: Dependent variables were patient breast cancer knowledge, treatment delay, and receipt of breast-conserving surgery (BCS). Key independent variables were five dimensions of the patient-physician interaction by patient report, including physician provision of tangible and interactive informational support, physician provision of emotional support, physician participatory decision-making style, and patient perceived self-efficacy in the patient-physician interaction. Age and ethnicity were additional important independent variables. Results: In multiple logistic regression models, only physician interactive informational support had significant relationships with all three dependent variables, controlling for a wide range of patient sociodemographic and case-mix characteristics, visit length, number of physicians seen, social support, and physician sociodemographic and practice characteristics. Specifically, informational support positively predicted patient breast cancer knowledge (adjusted odds ratio (AOR)=1.18, 95% confidence interval (CI)=1.00-1.38), negatively predicted treatment delays (AOR=0.80, 95% CI=0.67-0.94), and positively predicted receipt of BCS (AOR=1.29, 95% CI=1.07-1.56). Age and ethnicity were not significant predictors in these models. Conclusion: One specific domain of the patient-physician interaction, interactive informational support, may provide an avenue to ensure adequate breast cancer knowledge for patient treatment decision-making, decrease treatment delay, and increase rates of BCS for older breast cancer patients, thereby potentially mitigating known healthcare disparities in this vulnerable population of breast cancer patients.
PMID: 15209652 [PubMed - in process]

27: J Diabetes Complications. 2004 Jul-Aug;18(4):216-9.

Effect on quality of life with a new insulin injection device in elderly patients with diabetes mellitus type 2.

De Luis DA, Aller R, Cuellar L, Terroba MC, Ovalle HF, Izaola O, Romero E.

OBJECTIVE: The aim was to investigate the efficacy, safety, and satisfaction of a new insulin injection device in elderly subjects with type 2 diabetes on suboptimal glycemic control with two doses of insulin NPH alone. RESEARCH DESIGN AND METHODS: This study was a prospective no-blind study performed. We selected 25 patients (13 men and 12 women) with type 2 diabetes, only treated with two doses of NPH insulin (injection pen device) for more than 6 months, who did not achieved optimal glycemic control. Additional inclusion criterion was age 55 to 75 years (mean 65.6+/-8.6). All subjects were required to be able to comply with the protocol and carry out home blood glucose monitoring. RESULTS: HbA1c decreased significantly from 7.8% to 7.6% (P<.05) (2.6% decreased from baseline), and breakfast and

lunch preprandial glucose controls decreased significantly. Significant decrease was detected in breakfast and dinner postprandial glucose level. Taken the patients as a whole, insulin dose change significantly (29.8 ± 10.9 to 28 ± 10.8 UI/day; $P < .05$). The number of hypoglycemic events during the 3-month treatment was similar than before treatment with Innolet (2.3 ± 3.9 to 1.4 ± 2.6 events; ns). The summary results indicated significantly improvement satisfaction questionnaire before 23.9 ± 9 points and after 34.5 ± 6.5 insulin injection device ($P < .05$). CONCLUSION: Innolet improved glycemic control and satisfaction in a group of elderly patients with diabetes mellitus type 2 previously treated with pen devices. PMID: 15207839 [PubMed - in process]

28: J Fam Plann Reprod Health Care. 2004 Jul;30(3):163-5.

An observational study of Yasmin((R)) in the management of women with polycystic ovary syndrome.

Palep-Singh M, Mook K, Barth J, Balen A.

BACKGROUND: Polycystic ovary syndrome (PCOS) is the commonest endocrine disturbance affecting women in the reproductive age group and encompasses signs of hyperandrogenism, menstrual cycle disturbances and obesity. Some of the symptoms of PCOS may be ameliorated by the combined oral contraceptive pill (COCP). METHODS: A pilot observational study was carried out in a university teaching hospital setting to determine whether the clinical and biochemical features of PCOS are ameliorated by a new COCP, Yasmin((R)), which contains a new progestogen, drospirenone. Treatment with Yasmin was given for 6 months to 17 patients. RESULTS: Thirteen patients (76%) completed 6 months of therapy. Good cycle control was achieved in all patients. Percentage body fat increased, with no overall change in body mass index. Fasting insulin and triglyceride concentrations rose significantly. Serum total testosterone concentrations fell with a concomitant rise in sex hormone binding globulin levels. Hirsutism scores did not change significantly in the 12 women who were clinically hirsute. There was, however, a significant improvement in the acne scores. Four of the 17 patients dropped out of the trial between Cycles 3 and 5 due to side effects.

CONCLUSIONS: Yasmin provides good cycle control for women with PCOS, with an improvement in acne over 6 months but not in other symptoms of the syndrome.

PMID: 15222920 [PubMed - in process]

29: J Nutr. 2004 Jul;134(7):1812-1819.

Overall Adherence to the Dietary Guidelines for Americans Is Associated with Reduced Prevalence of Early Age-Related Nuclear Lens Opacities in Women.

Moeller SM, Taylor A, Tucker KL, McCullough ML, Chylack LT Jr, Hankinson SE, Willett WC, Jacques PF.

Few studies have examined the efficacy of the Dietary Guidelines for Americans in the prevention of age-related chronic disease, such as age-related cataract. We examined whether adherence to the Guidelines was associated with a lower prevalence of age-related nuclear lens opacities in women. Eye exams were conducted in 479 Nurses' Health Study participants aged 52 to 73 y without previously diagnosed cataract or diabetes living in the Boston, MA area. Four FFQs, collected during a 9- to 11-y period before evaluation of lens status, were used to define diet quality according to the following: 1) daily number of servings of fruits, vegetables, and whole grains; 2) Recommended Foods Score (RFS); and 3) Healthy Eating Index (HEI). Nuclear opacities were defined as scores ≥ 2.5 using the Lens Opacification Classification System III. After adjusting for age, smoking, and other risk factors, women in the highest

quartile category of HEI scores were significantly less likely to have nuclear opacities than those in the lowest category [odds ratio (OR) = 0.47; 95% CI: 0.26-0.84]. This association appeared to be stronger among nonusers of supplemental vitamin C (OR = 0.23; 95% CI: 0.10-0.52). Decreased prevalence odds of nuclear opacities were also observed with high intake of fruit (OR = 0.58; 95% CI: 0.32-1.05) and whole grains (OR = 0.64; 95% CI: 0.36-1.15). These results suggest that overall compliance with the Dietary Guidelines, as measured by the HEI, protects against nuclear opacities.

PMID: 15226474 [PubMed - as supplied by publisher]

30: J Nutr. 2004 Jul;134(7):1741-5.

Very low-fat (12%) and high monounsaturated fat (35%) diets do not differentially affect abdominal fat loss in overweight, nondiabetic women.

Clifton PM, Noakes M, Keogh JB.

Studies in women with type 2 diabetes demonstrated adverse effects on body fat distribution of a low-fat diet relative to a high monounsaturated fat diet. We performed a randomized 12-wk parallel design study of two 6000-kJ diets: 35% energy from fat (high monounsaturated fat diet, HIMO), or 12% energy from fat (very low-fat diet, VLF) to determine whether this also occurred in nondiabetic women. Body fat distribution, fasting plasma glucose, blood pressure, and fasting serum lipids were measured at wk 0 and 12 in 62 women (BMI > 27 kg/m²). Weight loss (9.5 +/- 2.4 vs. 9.4 +/- 3.4 kg, VLF vs. HIMO) and total fat loss (6.1 +/- 2.4 vs. 6.3 +/- 2.7 kg, VLF vs. HIMO) did not differ in the groups. There was a diet x menopausal status interaction in lean mass changes (P = 0.005) such that in premenopausal women, HIMO produced a lower loss of lean mass than the low-fat diet (0.4 +/- 2.3 vs. 2.9 +/- 2.7 kg, P = 0.006) with the opposite but nonsignificant effect seen in postmenopausal women. There was a greater decrease in total plasma cholesterol in women who consumed VLF compared with those who consumed HIMO (0.82 +/- 0.051 vs. 0.50 +/- 0.48 mmol/L, P < 0.001 for time, P < 0.05 for diet effect). This was also true for the change in HDL cholesterol (0.18 +/- 0.23 vs. 0.04 +/- 0.19 mmol/L, VLF and HIMO, respectively, P < 0.001 for time, P < 0.05 for diet effect). The LDL/HDL ratio was reduced in both groups with no effect of diet (0.16 +/- 0.51 vs. 0.16 +/- 0.45, VLF and HIMO, respectively, P < 0.05). In conclusion, weight, total fat mass, and regional fat mass loss did not differ in the 2 groups of women but there was an apparent preservation of lean mass in premenopausal women consuming HIMO.

PMID: 15226463 [PubMed - in process]

31: J Rheumatol. 2004 Jul;31(7):1391-8.

Health services costs and their determinants in women with fibromyalgia.

Penrod JR, Bernatsky S, Adam V, Baron M, Dayan N, Dobkin PL.

OBJECTIVE: Patients with fibromyalgia (FM) use health services extensively. Knowledge about costs of FM is limited because of non-inclusiveness in assessing direct costs, because attempts to assess indirect costs are largely absent, and because determinants of costs have yet to be identified. We investigated the 6-month costs (direct and indirect) in women with primary FM, and we identified determinants of direct costs. **METHODS:** Subjects (n = 180 women) completed a health resource questionnaire as well as measures of pain, psychological distress, comorbidity, and disability. Unit costs for resources were obtained from government, hospital, laboratory, and professional association sources. Regression modeling for 6-month direct cost included age, disability, comorbidity, pain intensity, psychological distress, education, and work status. **RESULTS:** The average 6-month direct cost was \$CDN 2298 (SD 2303). The largest components were medications (\$CDN 758; SD 654), complementary and alternative medicine (CAM; \$CDN 398; SD 776), and diagnostic tests (\$CDN 356; SD 580). Our most conservative estimate of average 6-month indirect cost was \$CDN 5035 (SD 7439).

Comorbidity and FM disability were statistically significant contributors to direct costs in the multivariate analysis. Costs increased by approximately 20% with each additional comorbid condition. **CONCLUSION:** Women with FM are high consumers of both conventional and CAM services. Our estimates of costs exceed those from most other studies; this may be due to our inclusion of a broader set of health services, medications, and indirect costs. Although in univariate analyses the number of comorbidities and indices of the effect of FM, psychological distress, and pain intensity were associated with higher direct cost, in a multiple regression analysis, only the measure of FM disability and the number of comorbidities were significant direct-cost determinants. FM also imposes important indirect costs, which were nearly 70% of the economic burden.

PMID: 15229962 [PubMed - in process]

32: J Rheumatol. 2004 Jun;31(6):1193-9.

Cyclic alternating pattern: a new marker of sleep alteration in patients with fibromyalgia?

Rizzi M, Sarzi-Puttini P, Atzeni F, Capsoni F, Andreoli A, Pecis M, Colombo S, Carrabba M, Sergi M.

OBJECTIVE: In the dynamic organization of sleep, cyclic alternating pattern (CAP) expresses a condition of instability of the level of vigilance that manifests the brain's fatigue in preserving and regulating the macrostructure of sleep. We evaluated the presence of CAP in patients with fibromyalgia (FM) compared to healthy controls. **METHODS:** Forty-five patients with FM (42 women) were studied and compared with 38 healthy subjects (36 women) matched for age, sex, and body mass index. Entry criteria were diagnosis of FM according to 1990 American College of Rheumatology criteria; willingness to participate in the study; and having no other diagnosis of autoimmune, neoplastic, or other possible causes of secondary diffuse musculoskeletal pain. Patients in the study underwent polysomnography recordings and a sleep questionnaire. Hypersomnolence was evaluated according to the Epworth Sleepiness Scale. **RESULTS:** FM patients had less sleep efficiency (sleep time/time in bed) than controls (79 +/- 10 vs 89 +/- 6; $p < 0.01$), a higher proportion of stage 1 non-rapid eye movement (non-REM) sleep (20 +/- 5 vs 12 +/- 5; $p < 0.001$), and twice as many arousals per hour of sleep (9.7 +/- 3.3 vs 4.1 +/- 1.9; $p < 0.01$). The CAP rate (total CAP time/non-REM sleep time) was significantly increased in FM patients compared to controls (68 +/- 6% vs 45 +/- 11%; $p < 0.001$). CAP rate seemed to correlate with the severity of clinical symptoms in FM patients (tender points index; $p < 0.01$) and with less efficiency of sleep ($p < 0.01$). **CONCLUSION:** The increase of CAP rate indicates a worse quality of sleep in patients with FM. These data are strongly correlated to the severity of symptoms. PMID: 15170935 [PubMed - in process]

33: J Urol. 2004 Jul;172(1):232-5.

Urinary urgency and frequency, and chronic urethral and/or pelvic pain in females. Can doxycycline help?

Burkhard FC, Blick N, Hochreiter WW, Studer UE.

PURPOSE: Persistent urinary urgency and frequency, and chronic urethral and/or pelvic pain in women are often a diagnostic and therapeutic challenge. This can be frustrating for patients and physicians. The search for an infectious agent often proves futile and after multiple ineffective treatment regimens patients may be classified as having interstitial cystitis or referred to a psychiatrist as the last option. We evaluated whether treatment with doxycycline of the patient and her sexual partner would be beneficial. **MATERIALS AND METHODS:** Women presenting with a history of urinary urgency and frequency, and chronic urethral and/or pelvic pain often associated with dyspareunia and/or a history of recurrent urinary tract infection were evaluated. Initial examinations included urethral and cervical/vaginal swabs, serum analysis, urine examination and culture, and bladder barbitage. A total of 103 women with a median age of 46 years (range 21 to 84) and with a median symptoms history of 60 months (range 3 to 480) were included. All patients had trigonal leukoplakia at cystoscopy, in 15% an infectious organism was identified and 30% had leukocyturia. All were treated with doxycyclines, and a vaginal antimicrobial and/or antimycotic agent following the same regimen, including treatment of the sexual partner. **RESULTS:** After treatment with doxycycline 71% of the women were symptom-free or had a subjective decrease in symptoms. **CONCLUSIONS:** Treatment with doxycycline is effective in more than two-thirds of patients complaining of persistent frequency and urgency, chronic urethral and/or pelvic pain, and dyspareunia as well as a history of recurrent urinary tract infections. In women with negative urinary cultures but a history of urgency/frequency probative treatment with doxycycline is justified and endoscopic findings may support the hypothesis of chronic infection. This should be done especially before contemplating psychiatric treatment or diagnosing the patient with interstitial cystitis. We attribute this high success rate to simultaneous treatment of the sexual partner, who may be an asymptomatic carrier, although this remains to be proved. PMID: 15201781 [PubMed - in process]

34: J Urol. 2004 Jul;172(1):227-31.

Autonomic response to stress in interstitial cystitis.

Lutgendorf SK, Latini JM, Rothrock N, Zimmerman MB, Kreder KJ Jr.

PURPOSE: Previous studies have documented elevations in indices of sympathetic activity in cats and humans with interstitial cystitis (IC). To examine potential autonomic dysregulation in IC we examined the effects of a laboratory mental stress challenge on blood pressure and heart rate (HR) in patients with IC and healthy controls. **MATERIALS AND METHODS:** A total of 14 female patients with IC and 14 age matched controls participated in a laboratory session, including a 25-minute mental stress challenge. Systolic blood pressure

(SBP), diastolic blood pressure (DBP) and HR were measured at intervals before, during and following the stressor. The level of chronic stress, symptom severity and pain at voiding were assessed. RESULTS: Mean age was 49 years (range 32 to 66). The resting HR of patients with IC (82.02 bpm) was significantly higher than that of controls (63.31 bpm, $p = 0.0001$). There was also suggested evidence of elevated resting DBP in patients with IC ($p = 0.07$) but no significant difference in mean resting SBP. Autonomic arousal elicited by the laboratory stressor did not differ between the groups and subjects in each group perceived the task as equally stressful. Patients with IC had significantly elevated HR at each time point compared with controls ($p < 0.0001$) with an average mean difference \pm SD between the groups of 19.5 ± 4.0 (main effect for group $p < 0.0001$). Although consistent increases in SBP and DBP were observed in patients after baseline, these differences were not significant. CONCLUSIONS: Patients with IC had an increased HR at baseline and throughout a laboratory mental stress challenge compared to healthy age matched women. No differences in HR or blood pressure reactivity were observed between the 2 groups. PMID: 15201780 [PubMed - in process]

35: Maturitas. 2004 Jul 15;48(3):299-306.

Reduced bone mass detected by bone quantitative ultrasonometry and DEXA in pre- and postmenopausal women with endogenous subclinical hyperthyroidism.

Tauchmanova L, Nuzzo V, Del Puente A, Fonderico F, Esposito-Del Puente A, Padulla S, Rossi A, Bifulco G, Lupoli G, Lombardi G.

Background: Although overt hyperthyroidism is a well known cause of bone loss, systemic effects of subclinical hyperthyroidism (SH) are still a matter of debate. Objective: The aim of this cross-sectional study was to evaluate the effect of endogenous SH on bone in relation to the menopausal status. Methods: Bone mass and turnover were assessed in a group of 60 patients with endogenous SH due to multinodular goitre; 30 of them were premenopausal and 30 early postmenopausal (mean age, [Formula: see text] and [Formula: see text], respectively). Sixty healthy women matched for age-, BMI- and menopausal status served as controls. Three different skeletal sites were evaluated using two different techniques: lumbar spine and femoral neck were assessed by DEXA whereas the proximal phalanges were evaluated by quantitative ultrasonometry (QUS), measuring the amplitude-dependent speed of sound (Ad-SoS). Serum osteocalcin and urinary deoxypyridinoline (DPD) were also determined as markers of bone turnover. Results: A significant decrease was found in femoral BMD ([Formula: see text]) and phalangeal Ad-SoS ([Formula: see text]) in pre- and postmenopausal patients compared to controls, being greater in those postmenopausal. Lumbar BMD was decreased only in postmenopausal patients ([Formula: see text]). Bone turnover markers were higher in patients than in controls and in post- than in the premenopausal ones. A significant negative correlation was found between femoral BMD, Ad-SoS and serum free T3 levels, the latter considered a marker of disease activity. Conclusions: A significant increase in bone turnover markers and a decrease in bone mass was found in women affected by endogenous SH, being greater in early postmenopausal patients. Cortical rich bone was mainly affected. Both QUS and the conventional DEXA technique were equally able to determine bone density decrease related to mild thyroid hormone excess and sexual hormone decrease. PMID: 15207896 [PubMed - in process]

36: Obstet Gynecol. 2004 Jul;104(1):88-93.

Undiagnosed Asymptomatic Hypoglycemia: Diet, Insulin, and Glyburide for Gestational Diabetic Pregnancy.

Yogev Y, Ben-Haroush A, Chen R, Rosenn B, Hod M, Langer O.

OBJECTIVE: The role of maternal hypoglycemia during pregnancy has not yet been established. We sought to estimate the prevalence of undiagnosed, asymptomatic hypoglycemic events that occur in diabetic patients. METHODS: All patients were evaluated using a continuous glucose monitoring system for 72 consecutive hours. The continuous glucose monitoring system measures in subcutaneous tissue interstitial glucose levels within a range of 40-400 mg/dL every 5 minutes for a total of 288 measurements per day. All patients were instructed regarding diabetic diet and assigned to pharmacological treatment as needed. Patients documented the time of food intake, insulin or glyburide administration, and all clinical hypoglycemic events. An asymptomatic hypoglycemic episode was defined

as more than 30 consecutive minutes of glucose value below 50 mg/dL detected only by continuous glucose monitoring system reading without patient awareness. RESULTS: An evaluation of 82 patients with gestational diabetes was performed; 30 were insulin-treated, 27 were managed by diet only, and 25 were patients treated with glyburide. For purposes of comparison, data were obtained from 35 nondiabetic gravid women. Asymptomatic hypoglycemic events were identified in 19 of 30 (63%) insulin-treated patients and in 7 of 25 (28%) glyburide-treated patients. No hypoglycemic events were identified in patients with gestational diabetes mellitus treated by diet alone or in nondiabetic subjects. The mean recorded hypoglycemic episodes per day was significantly higher in insulin-treated patients (4.2 ± 2.1) than in glyburide-treated patients (2.1 ± 1.1), $P = .03$. In insulin-treated patients, the majority of the hypoglycemic events were nocturnal (84%), whereas in glyburide-treated patients, episodes were identified equally by day and night. CONCLUSION: Our data suggest that asymptomatic hypoglycemic events are common during pharmacological treatment in gestational diabetic pregnancies. We speculate that this finding may be explained by treatment modality rather than by the disease itself. LEVEL OF EVIDENCE: II-2
PMID: 15229005 [PubMed - as supplied by publisher]

37: Obstet Gynecol Surv. 2004 Jul;59(7):524-525.

Metabolic, Inflammatory, and Hemostatic Effects of a Low-Dose Continuous Combined HRT in Women With Type 2 Diabetes: Potentially Safer With Respect to Vascular Risk.

McKenzie J, Jaap AJ, Gallacher S, Kelly A, Crawford L, Greer IA, Rumley A, Petrie JR, Lowe GD, Paterson K, Sattar N.

Diabetes Centre and Departments of Pathological Biochemistry, Obstetrics and Conventional hormone replacement therapy (HRT), consisting of conjugated equine estrogen and medroxyprogesterone acetate, increases levels of triglycerides, C-reactive protein, and coagulation Factor VII. These changes could help explain the increased risk of coronary heart disease (CHD) and stroke associated with HRT. This is especially pertinent to women with type 2 diabetes, who have a much increased risk of CHD. This study examined the metabolic effects of a continuous combined HRT regimen containing 1 mg estradiol and 0.5 mg norethisterone. The study, using a double-blind, randomized, placebo-controlled design, enrolled 50 women with type 2 diabetes. The treatment and control groups were similar in age, blood pressure, body mass index, and time since menopause. Actively treated women had a significant reduction in gonadotropin levels and increased levels of estradiol and sex hormone-binding globulin compared with women in the placebo group. Although total testosterone did not change significantly, the free androgen index decreased. Both total and low-density lipoprotein (LDL) cholesterol fell significantly, the latter by 13%, in actively treated women compared with placebo recipients. There were no changes in high-density lipoprotein (HDL) cholesterol or triglycerides. Fasting C-peptide levels decreased 19% compared with values in placebo patients. Fasting blood glucose levels were reduced in the HRT group. Levels of Factor VII, tissue plasminogen activator, and interleukin-6 all decreased in the HRT group compared with control women. There were no significant changes in Factor IX, activated protein C resistance, fibrinogen, or C-reactive protein. Ten of 25 actively treated women and 4 of the 25 given placebo had a greater than 10% drop in LDL cholesterol. This degree of decline in Factor VII levels was found in 16 women receiving HRT and only 1 placebo patient. Low-dose HRT could be more suitable than the conventional regimen for women who require relief of menopausal symptoms or bone protection but who are at increased risk of CHD. Firm recommendations cannot, however, be made until a large randomized, controlled trial focusing on cardiovascular end points is completed.
PMID: 15199269 [PubMed - as supplied by publisher]

38: Obstet Gynecol Surv. 2004 Jul;59(7):506-7.

Health literacy and pregnancy preparedness in pregestational diabetes.

Endres LK, Haney E, Sharp LK, Dooley SL.

The 19,000 women with pregestational diabetes who deliver infants each year in the United States are at increased risk of adverse outcomes, including spontaneous abortion, stillbirth, and congenital anomalies. The risk could be limited by preconceptional planning that ensures good glycemic control as well as folic acid supplementation. This pilot study was done to

examine the association, if any, between low functional health literacy in women with pregestational diabetes and markers of adverse pregnancy outcomes. Seventy-four pregnant women with type 1 or type 2 pregestational diabetes were prospectively entered into the study. They completed the short form of the Test of Functional Health Literacy in Adults (TOFHLA) as well as a demographic and medical questionnaire. Sixteen of the 74 women (22%) had low functional health literacy based on a TOFHLA score of 30 or lower. Women with adequate health literacy came earlier for prenatal care. There was no intergroup difference in gestational age at the time of evaluation. The adequate-literacy women were more often white and had had diabetes for a longer time. Fewer women in the low-literacy group had a high school education, and these women also had lower socioeconomic status. Unplanned pregnancies were more frequent in the low-literacy group, and women were less likely to have discussed becoming pregnant with a physician. In addition, low-literacy women were less likely to have taken folic acid before pregnancy or in the first trimester. Low-literacy women were likelier to be hospitalized during pregnancy, chiefly because of inadequate glycemic control. There was no group difference in gestational age at delivery, but birth weights were significantly greater in the low-literacy group. These women also were likelier to have an infant weighing more than 4000 g. In women with pregestational diabetes, low functional health literacy is associated with several factors that could negatively affect birth outcomes.
PMID: 15199260 [PubMed - in process]

39: Obstet Gynecol Surv. 2004 Jul;59(7):489-91.

Maternal morbid obesity and the risk of adverse pregnancy outcome.

Cedergren MI.

Obesity, including morbid obesity, is increasing rapidly in fertile women. Both maternal overweight and obesity are known to carry adverse pregnancy outcomes, including preeclampsia, gestational diabetes, and stillbirths. There are indications that morbid obesity, defined as a body mass index (BMI) exceeding 40 kg/m, is associated with even more complications and adverse outcomes. This prospective population-based cohort study was designed to estimate the risk of poor perinatal outcomes in morbidly obese women. A total of 3480 such women were compared with 12,698 obese women whose BMI ranged from 35.1 to 40 kg/m and with 535,900 women of normal body weight (BMI, 19.8-26 kg/m). Only singleton pregnancies were analyzed. Compared with normal-weight women, preeclampsia was increased nearly 5-fold in morbidly obese women (odds ratio [OR], 4.82). Obese women had an OR for preeclampsia of 3.90. Morbid obesity correlated with a nearly 3-fold increase in antepartum births compared with normal-weight women (OR, 2.79). There was no increase in the risk of abruptio placentae, and placenta previa was less frequent in morbidly obese women. Morbid obesity increased the risk of cesarean delivery nearly 3-fold compared with normal-weight women. Instrumental deliveries were increased 34% in the morbidly obese group and 18% in obese women. Morbidly obese women were likelier to have labor induced, even after excluding those with preeclampsia (OR, 2.38). Large-for-gestational-age infants were almost 4 times more frequent in the morbidly obese group than in normal-weight women. The risk of having a small-for-gestational-age infant was also increased (but not when preeclamptic women were excluded). Fetal distress and low Apgar scores were more than twice as frequent in infants of morbidly obese women. Meconium aspiration was also more prevalent (OR, 2.85). This large-scale study strongly associates morbid obesity in parturients with numerous threatening complications, warranting a designation of at-risk pregnancy. Hopefully, this will prove to be a convincing argument favoring weight reduction before and during pregnancy, and possibly afterward as well.

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40: Prev Med. 2004 Jul;39(1):74-80.

The relationship among physical activity, obesity, and physical function in community-dwelling older women.

Brach JS, VanSwearingen JM, FitzGerald SJ, Storti KL, Kriska AM.

Background. The relationship between obesity and physical function is not well understood. Physical activity may be a key factor impacting on the relationship between obesity and physical function. Methods. Subjects included 171 community-dwelling women (mean age = 74.3, SD = 4.3) participating in a 14-year follow-up study to a walking intervention trial. Measures of obesity [body mass index (BMI)] and physical activity (Modified Paffenbarger

Questionnaire) were collected in 1982, 1985, 1995, and 1999. Physical function was assessed in 1999 using the Functional Status Questionnaire (FSQ) and gait speed. Results. Measures of obesity from 1982 to 1995 and measures of physical activity from 1982 to 1995 were related to physical function in 1999. However, hierarchical regression analysis to predict physical function in 1999 controlling for the presence of chronic conditions indicated that physical activity from 1982 to 1995, and not obesity from 1982 to 1995, was an independent predictor of physical function (FSQ: adjusted $R(2) = 0.09$, $F = 4.68$, $P < 0.001$; gait speed: adjusted $R(2) = 18.0$, $F = 9.41$, $P < 0.0001$. Conclusion. Physical activity appears to be as important if not more important than body weight in predicting future physical function.
PMID: 15207988 [PubMed - in process]

41: Stroke. 2004 Jul 1 [Epub ahead of print]

Prospective Study of Major Dietary Patterns and Stroke Risk in Women.

Fung TT, Stampfer MJ, Manson JE, Rexrode KM, Willett WC, Hu FB.

BACKGROUND AND PURPOSE: Many foods have been suggested to influence the risk of stroke. However, no previous studies have examined the relationship between overall dietary patterns and risk of stroke. **METHODS:** Using dietary information collected in 1984 from 71 768 women aged 38 to 63 years without a history of cardiovascular disease or diabetes in 1984, we conducted factor analysis and identified 2 major dietary patterns: "prudent" and "Western." We calculated scores for each participant for each pattern and prospectively examined their associations with stroke risk using a proportional hazard model, adjusting for other stroke risk factors. **RESULTS:** The prudent pattern was characterized by higher intakes of fruits, vegetables, legumes, fish, and whole grains, whereas the Western pattern by higher intakes of red and processed meats, refined grains, and sweets and desserts. During 14 years of follow-up, we identified 791 incidents of stroke, with 476 ischemic and 189 hemorrhagic strokes. After adjusting for potential confounders, we observed a relative risk (RR) of 1.58 (95% CI, 1.15 to 2.15; $P=0.0002$ for trend) for total strokes and 1.56 (95% CI, 1.05 to 2.33; $P=0.02$ for trend) for ischemic stroke when comparing the highest with lowest quintiles of the Western pattern. For the prudent pattern, the RRs comparing extreme quintiles were 0.78 (95% CI, 0.61 to 1.01) for total stroke and 0.74 (95% CI, 0.54 to 1.02) for ischemic stroke. **CONCLUSIONS:** These data suggest that a dietary pattern typified by higher intakes of red and processed meats, refined grains, and sweets and desserts may increase stroke risk, whereas a diet higher in fruits and vegetables, fish, and whole grains may protect against stroke.
PMID: 15232120 [PubMed - as supplied by publisher]